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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,237	08/22/2001	Juergen Nowotnick	DE 010002	8687

24737 7590 12/02/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

DINH, MINH

ART UNIT PAPER NUMBER

2132

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/935,237

Applicant(s)

NOWOTTNICK ET AL.

Examiner

Minh Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

1. Claims 1-7 have been examined.

### ***Specification***

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

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3. The abstract of the disclosure is objected to: remove the word "Figure" at the bottom of the abstract. Correction is required. See MPEP § 608.01(b).

4. Claims 1-7 are objected to because of the following informalities:

- a claim should not be a complete sentence;
- the claims are system claims; so, the structure and language of the claims need to be changed to support such system claims.

Appropriate correction is required. See MPEP § 608.01(m).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krones (5,513,105) in view of Applicant's Admitted Prior Art (hereinafter "APA") disclosed in the instant application and Konrad et al (6,020,827).

a. Regarding claim 1, Krones discloses a security system comprising an access system; original, authorized access keys and one or more additional, non-original access keys wherein the access system can learn the one or more additional,

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non-original access keys so that they become authorized access keys wherein the learning comprises (col. 4, lines 8-14)

authenticating an original access key (col. 5, lines 8-11 and 32-57),

setting the access system and an additional access key to be learnt to a learning mode (col. 5, lines 32-57),

transmitting an individual identifier identifying by the access key to be learnt to the access system (col. 5, lines 32-57),

storing the identifier of the access key to be learnt so that access key to be learnt is subsequently used as an authorized access key (col. 5, lines 32-57).

Krones does not disclose that the access system and the access keys comprises pseudo-random number generators supplying an identical, secret cryptographic key, an identical cryptographic algorithm and identical numerical sequences, which are usable for mutual authentication in a challenge-response method. APA discloses that it is known in the art of vehicle security system that both the access system and the access keys comprises pseudo-random generators supplying an identical, secret cryptographic key, an identical cryptographic algorithm and identical numerical sequences so that a secure mutual authentication could be performed.

Krones only use an access key's identifier for authentication purpose. Krones does not disclose that the registering comprises transmitting the secret cryptography key by the access system to the access key to be learnt. Konrad discloses utilizing a secret cryptography key for authentication purpose. More specifically, Konrad discloses transmitting the secret cryptography key by the access system to the access key to be

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learnt (Figure and col. 2, lines 50-62). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Krones access system to utilize a secret cryptography key for authentication purpose, and more specifically, to transmit the secret cryptography key by the access system to the access key to be learnt, as taught by Konrad. The secret cryptography key is used for both encryption and authentication purposes. Accordingly, the secret cryptography key is encrypted by the access system prior to transmission.

b. Regarding claim 2, Krones further discloses that the access system sets the access key to be learnt to the learning mode by means of a command (col. 5, lines 32-57; col. 9, lines 1-9).

c. Regarding claim 3, Krones further discloses that only given, predetermined access keys in the access system are authorized to trigger learning of the additional, non-original access keys (col. 5, lines 8-11).

d. Regarding claim 6, Krones further discloses that the access system can be set to the learning mode by means of a predetermined sequence of operations (col. 5, lines 32-57).

e. Regarding claim 7, Krones further discloses that the access system is used in a motor vehicle (see Title).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krones in view of Applicant's Admitted Prior Art and Konrad as applied to claim 1 above, and further in view of Koopman, Jr. et al (Re. 36,181). Krones does not disclose that the

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cryptographic algorithms provided in the access system and the access keys are used as pseudo-random number generators. Koopman discloses a vehicle security system in which the cryptographic algorithms provided in the access system and the access keys are used as pseudo-random number generators (see Abstract; col. 3, lines 1-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Krones access system such that the cryptographic algorithms provided in the access system and the access keys are used as pseudo-random number generators, as taught by Koopman. The motivation for doing so would have been to reduce correlation between successively generated pseudo-random numbers and to make the system extremely difficult to breach by analysis (col. 4, lines 1-8).

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krones in view of Applicant's Admitted Prior Art and Konrad as applied to claim 1 above, and further in view of Marino et al (6,026,165). Krones does not disclose authorization of learned access keys can be withdrawn by erasing their identifiers stored in the access system. Marino discloses a security system in which authorization of learned access keys can be withdrawn by erasing their identifiers stored in an access system (col. 3, lines 1-14, 56-63; col. 10, line 64 – col. 11, line 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Krones access system such that authorization of learned access keys can be withdrawn by erasing their identifiers stored in the access system, as taught by Marino. The motivation for

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doing so would have been that an intruder could not gain unauthorized access using a lost or stolen access key.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pogue, Jr. et al (5,144,667) discloses a method of secure remote access to a vehicle.

Treharne et al (5,416,471) discloses a method and apparatus for programming a spare key into a security system.

Treharne (6,501,369) discloses a vehicle security system having unlimited key programming.

Epstein (5,517,567) discloses a key distribution system.

Mizuno et al (5,886,421) discloses a vehicle start-up permission device and identification code registering method.

Bruwer (6,191,701) discloses a secure self learning system.

Funakoshi et al (6,401,207) discloses a security device for vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dinh whose telephone number is 571-272-3802.

The examiner can normally be reached on Mon-Fri: 10:00am-6:30pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MD

Minh Dinh  
Examiner  
Art Unit 2132

MD  
11/24/04



THOMAS R. PEESO  
PRIMARY EXAMINER